How REV Connect's Innovation Sprints Redefine Utility Procurement

Age-Old Power of Deadlines

By Dan Bradley and H. Christine Richards, Navigant

In our article for the December 2018 issue of *Public Utilities Fortnightly*, we profiled the successful development of a concept called REV Connect to drive innovation in New York State's energy market.

The article identified four key learnings from Navigant's work with NYSERDA, New York State Energy Research and Development Authority, and REV Connect. Ensure the process of innovation is innovative. Demonstrate business models, not just technologies. Create a safe space to innovate. And redefine old relationship patterns.

In hindsight, we could have added another. Remember the power of deadlines.

One of REV Connect's greatest vehicles in driving innovative partnerships among utilities and market players is in the Innovation Sprint. The Innovation Sprint uses tight deadlines in combination with the opportunity for face-to-face utility pitch opportunities in the process of open innovation.

These sprints have fueled an approach to transform New York State utilities' procurement processes. An example of how Innovation Sprints work is through the story of how New York State Electric and Gas, a subsidiary of AVANGRID, was successful in finding a partner for its direct current fast charging electric vehicle pilot program.

The Basics of an Innovation Sprint

REV Connect Innovation Sprints focus attention on timely and specific utility needs for innovative energy partnerships. When we talk about utility needs, think about factors like electrification of heating and cooling or creative use cases for energy storage. If a utility has a need to replace a specific wooden pole, that falls back to traditional utility practices.

Innovation Sprints are time-bound – lasting about three months – kicking off with a webinar, driving toward a submission deadline, and culminating in a workshop. The Innovation Sprint process includes several key activities;

Kickoff: A webinar introduces key opportunities with New York utilities and outlines how to participate.

Submit: Interested parties develop and submit ideas related to the Innovation Sprint theme.

Facilitate: The REV Connect team reviews the submissions, provides feedback, and consults with participants on qualified submissions to refine ideas and better articulate value and the business model.

Connect: Qualified submitters participate in an invite-only workshop allowing one-on-one time with utilities to hear direct feedback and co-develop ideas.

Advance: Submitters may work with REV Connect and New York utilities to progress their ideas through the development of business cases, demonstration projects, or other partnerships.

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Submitters are also invited to use their refined ideas to participate in future utility requests for information and requests for proposals.

Innovation Sprints to-Date

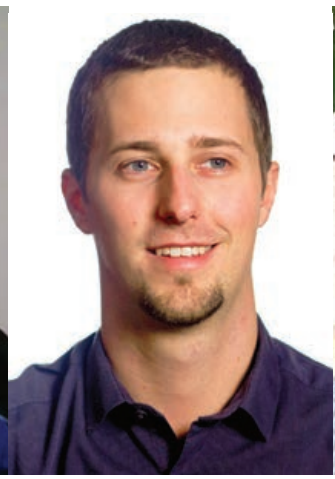
Through these Sprints, relevant topics are developed through utilities and other key stakeholders, working together to identify areas of interest for innovative solutions. In 2018, REV Connect held three Innovation Sprints, including the following;

Clean Heating and Cooling: New York State utilities are looking to help reduce the substantial greenhouse-gas emissions from heating and cooling buildings to support the state's GHG reduction goal of forty percent from 1990 levels by 2030. This Innovation Sprint facilitated innovative ideas and business models that work in partnership with utilities to cost-effectively electrify space heating and cooling systems across the state.

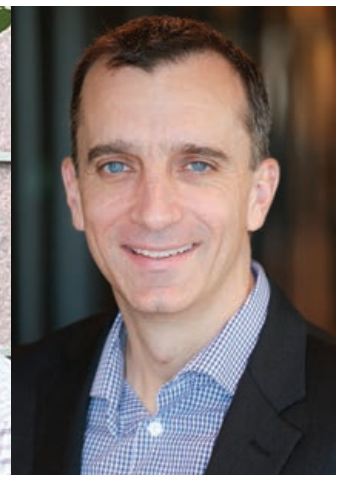
Electrifying Transportation: New York State utilities want to make it easier for New Yorkers to choose EVs while supporting electric grid benefits and the state's goal to reduce GHG emissions. This Innovation Sprint supported the development of plans to increase market adoption of personal and fleet EVs, EV infrastructure growth, and intelligent integration of EVs into the electric grid.

Innovative Energy Efficiency: The New Efficiency: New York initiative calls upon New York State's utilities to achieve significantly more – in both scale and innovation – in their energy efficiency activities, including ensuring that a substantial portion


Michelle Bebrin, Navigant


Sam Crawford, Navigant


Scott Bochenek, AVANGRID


Scott Fisher, Greenlots

of new activities in energy efficiency benefit New Yorkers with low-to-moderate incomes. This Innovation Sprint transformed the mix of utility energy efficiency investments to drive greater impact, while leveraging public and private funding to deliver more savings.

Innovation Sprints in Action: NYSEG

Based on input from multiple stakeholders, it became evident to New York State Electric and Gas, NYSEG, that DC fast chargers are critical for EVs to be a viable option for long-distance travel. This need is more critical in rural areas that do not have existing access to DC fast chargers. The business model for DC fast charging equipment is immature and deemed too risky to warrant sufficient investment in the communities that the utility serves.

While it was considering the best approach for deploying a DC fast-charger pilot, REV Connect was beginning to organize an Electrifying Transportation Innovation Sprint. The utility recognized that the Innovation Sprint provided an opportunity to pursue a pilot project and gather input from third parties to help inform scalable business models that overcome barriers for DC fast charging within its service territory. Further, the entire process could be accelerated thanks to the rapid pace of the sprint.

The utility's pilot provides an opportunity to learn about and test other aspects of DC fast charging, including the following key questions:

What aspects of the business model could scale to support further deployment of DC fast chargers? What impact will a utility programmatic approach have on site-host recruitment?

At what price point will site hosts invest in DC fast chargers? What other factors influence their investment decisions?

Other questions included: What value is created through NYSEG and EV supply equipment provider collaboration for site identification and development? How can pricing mechanisms and capacity sharing help manage the impact DC fast chargers have on peak demand? Can driver experience be improved by having payment interoperability among multiple EV supply equipment networks?

"The REV Connect Innovation Sprint process allowed us to broadcast our need to a broad group of stakeholders," said Scott Bochenek, manager of smart grid programs at AVANGRID. "We received seven different ideas from five different entities, and through the Sprint process we could quickly review and compare those ideas."

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Over a two-day period, it used the Innovation Sprint workshop to review the initial ideas with submitters, allowing them to narrow their choices to two submitters. The following day the REV Connect team facilitated working sessions with the utility and each of the two submitters to further discuss, evaluate, and modify the proposed ideas.

"These working sessions allowed us to collaboratively improve the initial proposals with potential partners. These working sessions also enhanced our views on the industry and the business model challenges by having open and transparent dialogue," said Bochenek.

"The working sessions started with submitters approaching it more like a typical vendor-utility pitch," said Sam Crawford, a managing consultant at Navigant. "Once it was clear that NYSEG wanted a partnership and not just a widget, the collaboration

really started. Both sides opened up and started learning a lot from one another, which ultimately led to better ideas for the pilot."

Proposals were reviewed with the REV Connect Steering Committee to help with the evaluation process. This review provided an important voice from multiple stakeholders, including several state agencies and other utilities.

"This is a unique environment where utilities can share their evolving ideas with key decisionmakers in a collaborative way. Having your regulator, peer utility, or market representative say early on 'have you thought about it this way?' is much more helpful than waiting until a thirty-page proposal gets filed that misses the mark," said Michelle Bebrin, an associate director at Navigant.

Based on the Innovation Sprint process, NYSEG selected Greenlots and Energetics as partners for the DC fast-charging pilot project.

The pilot will test a unique approach to DC fast-charging deployment. The utility will pay for utility system upgrades and onsite electrical installation through a make-ready investment. Greenlots will provide an option where it covers a portion of the upfront capital investment in exchange for a percentage of charging revenue.

The site host will pay for the balance of the capital investment. Greenlots' ongoing operating payments will be tied to performance and up-time of the charging stations. "The Innovation Sprint process allowed for collaboration and the development of a model that we think can work for all parties," said Scott Fisher, vice president, market development at Greenlots.

The project kicked off in Q4 2018 and will be delivered in three phases:

Phase One, Program Development: NYSEG and its partners will collaboratively develop site-host participation requirements, develop the site-host marketing plan and sales materials, recruit site hosts, perform assessments of potential site hosts (includes financial, electrical, and other elements of interest for drivers), and execute site-host agreements.

Phase Two, Project Implementation: NYSEG and its partners will plan and execute construction and installation of chargers.

Phase Three, Program Administration and Evaluation: NYSEG and its partners will market, measure, and evaluate the performance of the program. Two formal reports will be created: an initial report of lessons learned and a final report after the chargers have operated for twelve months.

Concluding Thoughts

While deadlines are nothing new, their age-old power can be added to the mix of tools that utilities can use to help drive open innovation and initiate new solutions. REV Connect's Innovation Sprints create a space where participants can focus on specific needs while giving latitude for innovators to put forward different solution sets and refine solutions in an open and collaborative process. This process creates the potential to discover and share value in new ways. PUF

Decarbonization and RIIO in the U.K.

(Cont. from p. 47)

Massachusetts: A Great Clean Energy Story – DERs and the Next Chapter, July 2018.)

With this strong focus on clean energy deployment, and large-scale renewables, the state has not placed a strong focus on upgrading physical infrastructure – for example, grid modernization – and changing the utility business model.

Key Lesson: Energy Transitions Require a Focal Point

Bolstered by these stateside examples, the key lesson from the United Kingdom is clear: major transitions in the energy industry require a focal point to drive innovation and change.

In the case of the United Kingdom, climate change policy functions as the driver. It enables stakeholders in the electric industry to conduct goal-setting and long-term planning. Stakeholders can work on different priorities, but everyone is moving in the same direction.

It is also important to note the focal point does not need to be climate policy. Illinois outlined a path toward grid modernization while Massachusetts focused on the implementation of clean energy resources. This focal point is driving utility innovation and direction.

If U.K. stakeholders are successful in resolving the lingering issues, taxi drivers in London may be talking about TNOs, DNOs, or even NWAs in the near future.

In the absence of a focal point, stakeholders are left merely with standalone initiatives. Further, prudently allocating resources becomes challenging because there is no metric for comparison and evaluation.

The United Kingdom has a clear commitment and path toward decarbonization. Yet the implementation of RIIO has not been without challenges similar to the ones found in the United States. However, if U.K. stakeholders are successful in resolving the lingering issues, taxi drivers in London may be talking about TNOs, DNOs, or even NWAs in the near future. PUF